

Amendments to the Specification

Please amend the specification as indicated.

Please amend the paragraph beginning on page 1, line 6, as follows:

This application is a continuation of U.S. Patent Application No. 10/183,552, filed June 28, 2002 (now U.S. Pat. No. 6,759,904 B2, issued July 6, 2004), which is a continuation of U.S. Patent Application No. 09/547,968, filed April 12, 2000 (now U.S. Pat. No. 6,525,609 B1, issued February 25, 2003), which is a continuation-in-part of U.S. Patent Application No. 09/493,942, filed January 28, 2000 (now U.S. Pat. No. 6,885,275 B1, issued April 26, 2005, which is a continuation-in-part of U.S. Patent Application No. 09/483,551, filed January 14, 2000 (now U.S. Pat. No. 6,445,039 B1, issued September 3, 2002), which is a continuation-in-part of U.S. Patent Application No. 09/439,101, filed November 12, 1999, the disclosures of which are incorporated herein by reference in all of their entireties.

Please amend the paragraph beginning on page 67, line 3, as follows:

FIGS. 24a-24c are exemplary illustrations of a tuning process utilizing switched capacitors. Filter responses shown at the bottom plot 2402 illustrate a tuning of a dummy filter 2310 that is contained in a tuning circuit 2302 of FIG. 24a. A frequency response being tuned in the upper graph 2404 shows the tuning of the exemplary 1,200 MHz bandpass filter 2304 of FIG. 24a. Initially none of the switched capacitors are applied in a dummy filter circuit. This places the filter response initially 2406 above the final desired tuned response frequency 2408. In this example capacitors are added until the filter response of the dummy filter is centered about 925 MHz. However, the tuned response of the 925 MHz dummy filter

2408 is not the desired center frequency of the bandpass filter in the signal path. The values used to tune the dummy filter would not tune the 1,200 MHz filter to the correct response. Frequency scaling is used to tune the desired response. This can be achieved because identical capacitors disposed on a chip are very well matched in value and parasitics. In particular capacitor matching is easy to achieve by maintaining similar dimensions between groups of capacitors. In scaling a response to determine a capacitance to apply in a bandpass filter, identical inductance values have been maintained in the dummy and bandpass circuits. Thus, only a scaling of the capacitors is necessary. The frequency relation in the exemplary embodiment is given by the ratio:

$$\frac{f_1}{f_2} \approx \sqrt{\frac{(L_2)(C_2)}{(L_1)(C_1)}} \quad (5)$$

For this particular embodiment utilizing identical inductor values $L_1 = L_2$. This reduces to:

$$\frac{f_1}{f_2} \approx \sqrt{\frac{(C_2)}{(C_1)}} \quad (6)$$

For the exemplary embodiment this is equal to 925/1200, or a capacitance ratio of 3:5. However, it is understood that other ratios will allow tuning to be performed equivalently.